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India and Communist China Contemplate Use of 1,000 Kilowatt Radio Transmitters for Broadcasts to Southeast Asia

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In July 1964, Communist China approached Japan for the purchase of a 1,000 kilowatt (kw) medium-wave radiobroadcasting transmitter. This request probably was in reaction to earlier Indian negotiations in 1963 and 1964 with Free World and Communist countries for the purchase of a similar 1,000 kw transmitter to be located near Calcutta to counter Communist Chinese broadcasts to Southeast Asia. Although the proposed location and use of the Communist Chinese transmitter is not known, it is expected that it will be installed in Southwest China so as to improve broadcasting coverage to Southeast Asia. To date neither country has finalized negotiations for delivery of the transmitters. Even if contracts are signed in the near future, it is unlikely that either project could be completed before late in 1966 in view of the lag inherent in the design, production, and installation of such transmitters.

1. Indian and Communist Chinese Plans

In the aftermath of the Sino-Indian border war, India and Communist China have sought to increase the coverage and effectiveness of their international radiobroadcasts to Southeast Asia. Within this context of a possible burgeoning propaganda war, both countries are now giving strong consideration to the use of 1,000 kw medium-wave radio transmitters. For its part, India early in 1963 reached an agreement with the Voice of America (VOA) for a jointly-controlled 1,000 kw medium-wave transmitter to be installed near Calcutta. In August 1963

India terminated the VOA agreement because of internal political considerations and opened negotiations with other Free World and Communist countries for the import of a similar transmitter that would be completely under its operational control. In early 1964 additional bids had been received from Czechoslovakia, Yugoslavia, Japan, the UK, and the US. All of these bids were unacceptable, however, either because of delivery dates or because financial terms did not meet the Indian requirement for rupee payment. In May 1964 the USSR entered the picture with an offer to provide on favorable terms a 1,000 kw transmitter to be operational within two years. Although a flurry of interest followed the Soviet offer, India apparently has postponed any decision at present. 17

With the advent of the USSR offer to India, Communist China quickly revealed a strong interest in acquiring a 1,000 kw medium-wave radio transmitter. In hopes of meeting this need, Communist China turned to a Japanese trading company 25X1C in July 1964 when it submitted a formal request for assistance in the construction 25X1C of a 1,000 kw radio station with Japanese technology and equipment. [redacted]

[redacted]

2. Economic and Technical Considerations

This Indian and Communist Chinese interest in 1,000 kw medium-wave transmitters mirrors a growing world-wide interest in supplementing international short-wave

broadcasts with powerful medium-wave broadcasts to reach the greater number of conventional medium-wave broadcast receivers. Propagation conditions at medium frequencies, however, are such that coverage beyond a few hundred miles only can be attained during hours of darkness. As shown on the accompanying map, the Indian transmitter planned for installation near Calcutta probably would permit nighttime coverage with a high signal strength to at least 1,000 miles. This coverage would encompass all of Burma and parts of Laos, Thailand, and South China. Communist China could achieve similar geographic coverage by locating its prospective transmitter in the Kunming area. Nighttime coverage from transmitters of this size might in fact extend to 2,000 miles although the signal strength would be much weaker and subject to intermittent fading.

At present the US has the only operational 1,000 kw medium-wave transmitters -- located in Okinawa and the Philippines -- but the UK and Egypt probably will have operational transmitters of similar power in the near future. This limited use of 1,000 kw transmitters can be attributed to a considerable degree to the requirement for manufacturing specialized component parts for such powerful transmitters and the high investment and operating costs. Initial investment costs for 1,000 kw transmitters range from US $1 million to US $2 million and recurring operating and maintenance costs range from US $250,000 to US $500,000 per year.

3. Prospects

Although the USSR offer to India appears at present to be the most attractive, and indeed the most likely to be accepted, India still has the alternative of a

Czechoslovakian offer to accept rupee payment for a somewhat smaller transmitter. Among the bids offered by non-rupee payment countries the two bids rendered by Japan are the most favorable. India has attempted to rationalize its earlier refusal of the Japanese offer on the basis that its electronics industry lacks experience in the design and production of such transmitters although in fact the electronics industry of the USSR is similarly untested. The advanced stage of development of the electronics industries of both countries, however, would indicate that each has the ability to master the necessary technology and could provide an operational transmitter within two years. With respect to Communist China, Japan probably will accede to their request for technology and equipment for the construction of a 1,000 kw radio station. Japan's initial response to the Communist Chinese inquiry probably reflected an awareness that the US would be sensitive to any Japanese assistance in the buildup of Communist China's international broadcasting effort to Southeast Asia. Nevertheless, the Japanese probably will be reluctant to jeopardize its prospective position as a major supplier of telecommunications equipment to Communist China. 3)

Map: Estimated Nighttime Coverage of 1,000 Kilowatt Medium-Wave Radio Transmitters from Possible Sites in India and Communist China

Sources:

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3. State, New Delhi. Incoming T-521, p. 2, 14 Aug 64. S.

Analysts: [redacted]

Coord: [redacted] ORR

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